

WHAT IS CLAIMED IS:

1. A system for estimating biological data at the time of walking, the system comprising:
  - 5 body burden capacity acquiring means,  
means for acquiring an exercise stress level at the time of walking, and  
means for estimating biological data at the time of walking,  
wherein:
    - 10 the body burden capacity acquiring means acquires a relationship between biological data and an exercise stress level prior to walking,  
the means for acquiring an exercise stress level at the time of walking acquires an exercise stress level at the time of walking, and
    - 15 the means for estimating biological data at the time of walking estimates biological data at the time of walking in correspondence to the exercise stress level acquired by the means for acquiring an exercise stress level at the time of walking based on the relationship acquired by the body burden capacity acquiring means.
2. The system of claim 1, wherein the body burden capacity acquiring means comprises:
  - 25 pre-walking exercise stress level estimating means, and biological data measuring means,  
wherein:  
the pre-walking exercise stress level estimating means

estimates a number of different exercise stress levels prior to walking, and  
the biological data measuring means measures biological data corresponding to each of the different exercise stress levels  
5 estimated by the pre-walking exercise stress level estimating means.

3. The system of claim 2, wherein the pre-walking exercise stress level estimating means comprises:  
10 body weight inputting means,  
height inputting means,  
ascending/descending pitch generating means, and  
means for computing an exercise stress level at the time of ascending or descending a platform,  
15 wherein:  
the body weight inputting means takes in a body weight,  
the height inputting means takes in the height of the platform,  
the ascending/descending pitch generating means generates a constant ascending/descending pitch to ascend and descend the platform, and  
20 the means for computing an exercise stress level at the time of ascending or descending a platform computes an exercise stress level at the time of ascending or descending the platform based on the body weight inputted by the body weight inputting means, the height of the platform inputted by the height inputting means and the constant ascending/descending pitch generated by the ascending/descending pitch generating means.  
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4. The system of claim 1, wherein the means for acquiring an exercise stress level at the time of walking comprises:  
walking step measuring means,  
walking time measuring means,  
5 walking pitch computing means,  
body height inputting means,  
walking speed computing means,  
body weight inputting means, and  
means for computing an exercise stress level at the time of  
10 walking,  
wherein:  
the walking step measuring means measures walking steps at the time of walking,  
the walking time measuring means measures walking time during  
15 which the walking steps are measured by the walking step measuring means,  
the walking pitch computing means computes a walking pitch based on the walking steps measured by the walking step measuring means and the walking time measured by the walking time  
20 measuring means,  
the body height inputting means takes in a body height,  
the walking speed computing means computes a walking speed based on the walking pitch computed by the walking pitch computing means and the body height inputted by the body height inputting  
25 means,  
the body weight inputting means takes in a body weight, and the means for computing an exercise stress level at the time of walking computes an exercise stress level at the time of

walking based on the walking speed computed by the walking speed computing means and the body weight inputted by the body weight inputting means.

5        5. The system of claim 2, wherein the means for acquiring an exercise stress level at the time of walking comprises: walking step measuring means, walking time measuring means, walking pitch computing means, 10 body height inputting means, walking speed computing means, body weight inputting means, and means for computing an exercise stress level at the time of walking, 15 wherein: the walking step measuring means measures walking steps at the time of walking, the walking time measuring means measures walking time during which the walking steps are measured by the walking step 20 measuring means, the walking pitch computing means computes a walking pitch based on the walking steps measured by the walking step measuring means and the walking time measured by the walking time measuring means, 25 the body height inputting means takes in a body height, the walking speed computing means computes a walking speed based on the walking pitch computed by the walking pitch computing means and the body height inputted by the body height inputting

means,

the body weight inputting means takes in a body weight, and the means for computing an exercise stress level at the time of walking computes an exercise stress level at the time of walking based on the walking speed computed by the walking speed computing means and the body weight inputted by the body weight inputting means.

6. The system of claim 3, wherein the means for acquiring an exercise stress level at the time of walking comprises:

walking step measuring means,

walking time measuring means,

walking pitch computing means,

body height inputting means,

15 walking speed computing means,

body weight inputting means, and

means for computing an exercise stress level at the time of walking,

wherein:

20 the walking step measuring means measures walking steps at the time of walking,

the walking time measuring means measures walking time during which the walking steps are measured by the walking step measuring means,

25 the walking pitch computing means computes a walking pitch based on the walking steps measured by the walking step measuring means and the walking time measured by the walking time measuring means,

the body height inputting means takes in a body height,  
the walking speed computing means computes a walking speed based  
on the walking pitch computed by the walking pitch computing  
means and the body height inputted by the body height inputting  
5 means,

the body weight inputting means takes in a body weight, and  
the means for computing an exercise stress level at the time  
of walking computes an exercise stress level at the time of  
walking based on the walking speed computed by the walking speed  
10 computing means and the body weight inputted by the body weight  
inputting means.

7. The system of claim 1, further comprising walking  
amount computing means for computing a walking amount by use  
15 of the biological data estimated by the means for estimating  
biological data at the time of walking.

8. The system of claim 2, further comprising walking  
amount computing means for computing a walking amount by use  
20 of the biological data estimated by the means for estimating  
biological data at the time of walking.

9. The system of claim 3, further comprising walking  
amount computing means for computing a walking amount by use  
25 of the biological data estimated by the means for estimating  
biological data at the time of walking.

10. The system of claim 4, further comprising walking

amount computing means for computing a walking amount by use of the biological data estimated by the means for estimating biological data at the time of walking.

5           11. The system of claim 5, further comprising walking amount computing means for computing a walking amount by use of the biological data estimated by the means for estimating biological data at the time of walking.

10           12. The system of claim 6, further comprising walking amount computing means for computing a walking amount by use of the biological data estimated by the means for estimating biological data at the time of walking.

15           13. The system of claim 7, wherein the walking amount is at least one selected from exercise intensity, fat burning efficiency, a fat consumption calorie and an amount of burned fat.

20           14. The system of claim 8, wherein the walking amount is at least one selected from exercise intensity, fat burning efficiency, a fat consumption calorie and an amount of burned fat.

25           15. The system of claim 9, wherein the walking amount is at least one selected from exercise intensity, fat burning efficiency, a fat consumption calorie and an amount of burned fat.

16. The system of claim 10, wherein the walking amount  
is at least one selected from exercise intensity, fat burning  
efficiency, a fat consumption calorie and an amount of burned  
5 fat.

17. The system of claim 11, wherein the walking amount  
is at least one selected from exercise intensity, fat burning  
efficiency, a fat consumption calorie and an amount of burned  
10 fat.

18. The system of claim 12, wherein the walking amount  
is at least one selected from exercise intensity, fat burning  
efficiency, a fat consumption calorie and an amount of burned  
15 fat.

19. The system of any one of claims 1 to 18, wherein the  
biological data is a pulse rate.

20 20. A walking pitch generator comprising:  
body burden capacity acquiring means,  
assumed biological data acquiring means,  
assumed exercise stress level estimating means,  
body weight inputting means,  
25 walking speed computing means,  
body height inputting means, and  
walking pitch computing means,  
wherein:

the body burden capacity acquiring means acquires a relationship between biological data and an exercise stress level prior to walking,

the assumed biological data acquiring means acquires assumed

5 biological data which represents biological data assumed to be desirably obtained at the time of walking, prior to walking, the assumed exercise stress level estimating means estimates an assumed exercise stress level representing an exercise stress level assumed to be obtained at the time of walking in 10 correspondence to the assumed biological data acquired by the assumed biological data acquiring means based on the relationship acquired by the body burden capacity acquiring means,

the body weight inputting means takes in a body weight,

15 the walking speed computing means computes a walking speed based on the body weight inputted by the body weight inputting means and the assumed exercise stress level estimated by the assumed exercise stress level estimating means,

the body height inputting means takes in a body height, and

20 the walking pitch computing means computes a walking pitch based on the body height inputted by the body height inputting means and the walking speed computed by the walking speed computing means.

25 21. The walking pitch generator of claim 20, wherein the body burden capacity acquiring means comprises:  
pre-walking exercise stress level estimating means, and  
biological data measuring means,

wherein:

the pre-walking exercise stress level estimating means estimates a number of different exercise stress levels prior to walking, and

5 the biological data measuring means measures biological data corresponding to each of the different exercise stress levels estimated by the pre-walking exercise stress level estimating means.

10 22. The walking pitch generator of claim 21, wherein the pre-walking exercise stress level estimating means comprises:

the body weight inputting means,

height inputting means,

ascending/descending pitch generating means, and

15 means for computing an exercise stress level at the time of ascending or descending a platform,

wherein:

the height inputting means takes in the height of the platform, the ascending/descending pitch generating means generates a 20 constant ascending/descending pitch to ascend and descend the platform, and

the means for computing an exercise stress level at the time of ascending or descending a platform computes an exercise stress level at the time of ascending or descending the platform

25 based on the body weight inputted by the body weight inputting means, the height of the platform inputted by the height inputting means and the constant ascending/descending pitch generated by the ascending/descending pitch generating means.

23. The walking pitch generator of any one of claims 20 to 22, wherein the biological data is a pulse rate.

5           24. The walking pitch generator of claim 23, wherein the assumed biological data acquiring means comprises:  
exercise intensity inputting means,  
age inputting means,  
resting pulse rate acquiring means, and  
10 assumed biological data computing means,  
wherein:  
the exercise intensity inputting means takes in exercise intensity desired at the time of walking,  
the age inputting means takes in an age,  
15 the resting pulse rate acquiring means acquires a resting pulse rate, and  
the assumed biological data computing means computes a pulse rate assumed to be desirably obtained at the time of walking based on the exercise intensity inputted by the exercise  
20 intensity inputting means, the age inputted by the age inputting means and the resting pulse rate acquired by the resting pulse rate acquiring means.

25       25. The walking pitch generator of claim 24, wherein the resting pulse rate acquiring means acquires, as the resting pulse rate, a pulse rate corresponding to an exercise stress level of zero based on the relationship acquired by the body burden capacity acquiring means.